



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

\*\*\*PO REPRINT\*\*\*

Purchase Order ID PO20015

Purchase Order Date 5/29/2013

PO Print Date 5/29/2013

Page Number 1 of 1

Order From : VC-MET004

METCOR INC.  
560 BOUL. ARTHUR SAUVE  
SAINT-EUSTACHE, QC J7R 5A8  
CA

Contact Name	Buyer	Chantal Lavoie
Vendor Phone	Requisition Nbr	
Vendor Fax	Tax Resale Nbr	10127-2607
Vendor Account Nbr	Terms	Net 30
	Currency	CAD
	FOB	Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1		HEAT TREAT 17-4 PH- H900 BAR 4" X 4-3/4"	6/24/2013	4.00 <i>feet</i>	TST ground	\$0.0000	\$0.00
				Yes	Each		
		Special Inst:	17-4 PH BAR 4" X 4-3/4" SENT FROM: CAMPI P/O:20013 HEAT TREAT TO COND H900 FTY IN EXCESS OF 170KSI FTU IN EXCESS OF 190KSI PER AMS2759/3				
			PLEASE ADVISE PRICE \$\$\$\$\$\$				
						PO Total:	\$0.00

*2 pc  
making HFT*



No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr: 2

Change Date: 5/29/2013

## **Josee Bonhomme**

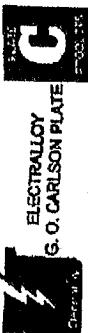
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**De:** Brigitte Golden <bgolden@dartaero.com>  
**Envoyé:** 29 mai 2013 15:04  
**À:** Josee Bonhomme  
**Objet:** new p/o"s  
**Pièces jointes:** po20015 metcor.pdf; po20016 metcor.pdf

Hi Josee,  
Please see p/o"s material has been order from Campi and Metaux caslte, will direct to you for heat treat.  
Thanks  
Chantal



56134

MATERIAL CERTIFICATION REPORT and CERTIFICATION OF QUALITY CONFORMANCE		Customer Address	Shipping Address	Print Date Time	Ship Note
 <p>175 Main Street OZ CITY PA 16301 1 (800) 454-7273</p>		C		02-Nov-2012 11:18	120716
				Certification ID 139507-1	
				Customer Order	Sales Order
					114930

Grade: 17-4

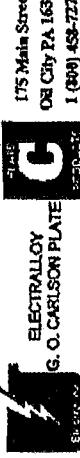
Specification: UNS-S17400; Plate, ASTM A693-06 Type 690, Condition A, ASME SA693 ASME B&PV Code Section II, 2010 Edition, 2011a Addenda, AMS-5604F with AMS-2750D Pyrometry. Material supplied in Condition A with Hardness reported in Condition A. Capability testing reported in 900 Deg F (+/-10) Precipitation Treatment. General Requirements ASTM A480-12; Flatness ASTM A480-99%. Surfaces are Grit Blast-Descaled in lieu of Blast Cleared or Pickled. Material Certification conforms to Certificate 3.1 in EN10204.

Condition: HOT ROLLED, ANNEALED

Sales Order	Quantity	Heat	Lot ID	Weight	Size	Customer Mark
114930-1	1	52447	52447-4	9,056 LB	Length: 124.0000 in. Thick: 4.0000 in. Width: 62.5000 in.	
Lot	Test		Result	Low Limit	High Limit	
				52447-4	(Rc)	
SPECIFICATIONS RESULTS						
E7021 LAMEL CAPSULE FOR ASSESSMENT						
52447	C		0.036	0.000	0.070	
52447	Cr <sub>2</sub> O <sub>3</sub>		0.32	0.15	0.45	
52447	Mn		0.54	0.00	1.00	
52447	P		0.020	0.000	0.040	
52447	S		0.001	0.000	0.030	
52447	Si		0.47	0.00	1.00	
52447	C <sub>2</sub>		15.17	15.00	17.50	
52447	N <sub>2</sub>		4.51	3.00	5.00	
52447	Mo		0.26	0.00	0.50	
52447	Ca		3.52	3.00	5.00	
52447	5C <- C <sub>2</sub>		0.320	0.150	0.450	
52447	T <sub>a</sub>		0.01	0.00	0.05	
52447-4	(Rc)		34	0	38	
E900 Capability for Plate sizes greater than 0.625" thick						
REDUCTION AREA						
52447-4	TT (%)		38	30	100	
TENSILE						
52447-4	TT (PSI)		205400	190000	230000	
24 TRAIL OFFSET						
52447-4	TT (PSI)		184000	170000	210000	
Elongation 2 in.						
52447-4	TT (%)		15	10	50	

The rendering of Sales, Estimates, or Financial statements or extracts on this document may be punishable as a felony under Federal Statute.  
The above are true and correct results of tests on samples of the material. Results conform to the specification(s) listed above and are on record.  
At time of shipment, there under material produced under this order have not come into contact with Mercury or its compounds.

56134

MATERIAL CERTIFICATION REPORT and CERTIFICATION OF QUALITY CONFORMANCE	
 <p><b>ELECTRALLOY</b> G. O. CARLSON PLATE S-30-17</p>	<p>Customer Address 1175 Main Street OZ CITY PA 16381 1 (800) 458-7273</p>
<p>Customer Address Shipping Address Print Date Time Ship Note</p>	
<p>1175 Main Street OZ CITY PA 16381 1 (800) 458-7273</p>	
<p>02-Nov-2012 11:18 129716 Certification ID 139507-1 Customer Order Sales Order 114950</p>	

**Quality Statements:**

Material Certification conforms to Certificate 3.1 as in EN10204:2010.  
NO WELDS PERFORMED.

Material was not exposed to Radiation or other radioactive materials while at our facility.

ASTM E1015-08, ASTM E572-02a (2009)-2 and ASTM E1086-08 are methods used to determine the chemical analysis for Fe Base (High Alloy) alloys utilizing XRF, OES and Combustion and Fusion Methods.

All items are in full compliance with all purchase order and specification requirements.

The Mechanical Tests have been performed at Leigh Testing Laboratories, Inc. located at 308 West Basin Road, New Castle, DE 19720.

Material furnished on this order was produced under Electralloy Quality Program dated June 7, 2011.

It is hereby certified that all items furnished in this shipment are in full compliance with the purchase order and specification requirements. It is further certified that the test reports represent the actual attributes of the items furnished and are in full conformance with all applicable specifications and order requirements.

Materials produced under this order have not come into contact with Mercury or its compounds within G.O. Carlson, Inc. facilities.

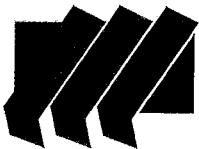
100% Melted, Rolled and Manufactured in the USA.

Meets EU Electrical & RoHS\*. Contains NO "WEF" relevant substances. Complies with DFARS-225.1-Buy American Act-Supplies. HWR = Minimum Hot Working Reduction Ratio. Electralloy only accepts residual and trace elements to the limits imposed by the specification and or customer. This document shall not be reproduced, except in full, without the written approval of Electralloy / GOC Plate. We hereby affirm that the reported results on this certification are correct and accurate. All tests and results and operations performed by (Electralloy/G.O. Carlson Plate) or its subcontractors are in compliance with the applicable material/customer specification(s).

The parties agree that when title transfers for the products subject to this agreement, or when the products are delivered to purchaser, whichever occurs first, responsibility for the submission of any required export or re-export licenses or related export control approvals for these products also transfers to purchaser. Any export license requirement under any applicable export control statute, regulation, or practice, from any U.S. government agency, including but not limited to the Department of Commerce's Bureau of Industry and Security, the Department of Treasury, Office of Foreign Assets Control, the U.S. Department of State, Directorate of Defense Trade Controls, and the Nuclear Regulatory Commission, are solely the responsibility of the purchaser. Further, purchaser warrants that it will comply with all applicable export and re-export controls related to these products.

The recording of data, signatures, or franchises, statements or entries on this document may be permissible as a safety under Federal Statute.  
The above are true and correct results of tests on samples of the material. Results conform to the specification(s) listed above and are as received.  
At time of shipment, items and/or material produced under this order have not come into contact with Mercury or its compounds.

Name: David A. Fullerson  
Title: QC Technician/Works Inspector  
By: 



# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ

ST-EUSTACHE, QC, J7R 5A8

Tel.: 450 473-1884 / Téléc. / Fax : 450 491-5498

## Certificat de Conformité

Certificate of Compliance

BON DE TRAVAIL

order

187132

CHARGEMENT

load

1

CLIENT / customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

1

ON K6A 1K7

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
PO20015		17-4PH		

### SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

AGE HARDEN

CONDITION H 900

SAE AMS 2759/3 REV.E

EXIGENCE / requirement	SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	40 - 47 HRC	2 44.0 - 45.0 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
2	325	BAR 4" X 4 3/4" 2 PCS = 4 PIEDS MATÉRIEL: 17-4PH  CONTENANT: 1 PALETTE

### COMMENTAIRES / comments

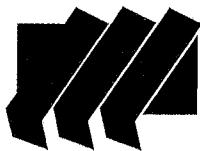
LES TRAITEMENTS THERMIQUES SUR CETTE COMMANDE A ÉTÉ FAIT EN UTILISANT DE S ÉQUIPEMENTS EN CONFORMITÉ AVEC LES REQUIS DE LA SPÉCIFICATION AMS2759.

TOUTES LES OPÉRATIONS DE TRAITEMENT THERMIQUE ONT ÉTÉ FAITES EN CONFORMITÉ AVEC LES REQUIS DE LA SPÉCIFICATION DEMANDÉE ET TOUTES LES VÉRIFICATIONS ET LES TESTS DEMANDÉS ONT ÉTÉ FAITES ET DOCUMENTÉS.

AUCUN CHANGEMENT OU DÉROGATION N'A ÉTÉ FAITE PAR RAPPORT AU TRAITEMENT THERMIQUE DEMANDÉ. ON CERTIFIE QUE LE MATÉRIEL A ÉTÉ FABRIQUÉ, ÉCHANTILLONNÉ, TESTÉ ET INSPECTÉ EN ACCORD AVEC LES SPÉCIFICATIONS DU MATÉRIEL ET LE BON DE COMMANDE ET LE MATÉRIEL RENCONTRE LES EXIGENCES SPÉCIFIÉS.

ACCOMPLISHED USING HEAT TREATMENT EQUIPMENT THAT MEETS THE REQUIREMENTS OF AMS 2759. ALL THE HEAT TREATMENT OPERATIONS WERE ACCOMPLISHED IN ACCORDANCE WITH THE REQUESTED/REQUIRED HEAT TREATMENT SPECIFICATION AND ALL REQUIRED VERIFICATIONS TEST HAVE BEEN PERFORMED AND DOCUMENTED. NO UNAUTHORIZED CHANGES OR ALL THE HEAT TREATMENT PROCESSING PERFORMED ON THIS ORDER WAS DEVIATIONS TO REQUIRED HEAT TREATMENT SPECIFICATIONS OR PROCEDURES HAVE BEEN PERFORMED.

WE CERTIFY THAT THE MATERIAL WAS MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH THE MATERIAL SPECIFICATION AND THE PURCHASE ORDER AND WAS FOUND TO MEET THE REQUIREMENTS.



**METCOR INC.**

**560 BOUL. ARTHUR-SAUVÉ  
ST-ÉUSTACHE, QC, J7R 5A8  
Tel.: 450 473-1884 / Téléc. / Fax : 450 491-5498**

**Certificat de Conformité**

Certificate of Compliance

<b>BON DE TRAVAIL</b> order	<b>CHARGEMENT</b> load
<b>187132</b>	<b>1</b>

CLIENT / customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

1

CERTIFIÉ par / Certified by:

*Isabelle Gagnon*

DATE: 2013-07-02

